Wesley



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

105 South Meridian Street
P.O. Box 6015
Indianapolis 46206-6015
Telephone 317/232-8603

June 25, 1991

MANAGE OF THE PARTY OF THE PART

VIA CERTIFIED MAIL P 124 438 044

Mr. Duane E. Emerson Senior Vice-President, Administration Ball Corporation 345 South High Street Muncie, Indiana 47305-2326

Re: Notice of Inadequacy (H-135)
Hazardous Waste Management
Ball Corporation
EPA I.D. No. IND 000810713
Muncie, Delaware County

Dear Mr. Emerson:

This will acknowledge the receipt of information from Ball Corporation (Ball Corp.) on April 18, 1991. This information was submitted as directed by the terms of the Order contained in an Agreed Order in Cause Number H-135 adopted on November 26, 1989, and our Notice of Inadequacy issued on March 19, 1991.

Staff has reviewed the information submitted and determined that your response is not sufficient to determine if compliance with hazardous waste management requirements under 329 IAC 3 have been met. Please submit additional information as listed below:

1. In response to item number one of the Notice of Inadequacy (N.O.I.), Mr. Richard Cole submitted training forms for employees in hazardous waste management positions. Three (3) training forms submitted were not included on the page titled "Job Titles Involved In Hazardous Waste Management." Specifically, training forms were submitted for Phyllis Bulmer (manager - Employee Relations, Closure Plans), James Clupper (Process Engineer) and Kent Bickell (manager - Environmental Services); however, these names were missing from the "Job Titles" page. Submit documentation to this Office which resolves this discrepancy.

- 2. In response to item number one of the N.O.I., Mr. Cole submitted a copy of Ball Corp.'s "Hazardous Waste Management Program." Contained in this document is a paragraph entitled "Presentation" which discusses the administration of the training program. The last sentence of this paragraph states that "The training program will be conducted by one of Ball Corp.'s Environmental Engineers." However, no description of the trainer's qualifications is given. As per 329 IAC 3-16-7(a)(2), submit documentation to this Office which delineates the name of the trainer and his/her education and training in hazardous waste management procedures. If Ball Corp. utilizes several different trainers, include in this documentation the names and qualifications of each of these trainers.
- 3. In response to item number three of the N.O.I., Mr. Cole submitted a discussion of a waste determination for an unidentified material present on the floor of the container storage area. Further documentation is required. Specifically, submit to this Office the following: 1) summary of QA/QC results (including bench sheets, chain-of-custody forms and method of standard additions sheets) for both the Ball Lab and Sherry Labs analyses, 2) pH and ignitability results, 3) a discussion of the sampling procedure utilized to obtain the sample, 4) a copy of the original analyses from both the Ball Lab and Sherry Labs on lab letterhead, and 5) a copy of the documentation which accompanied the disposal of this waste to Heritage Treatment Center.
- 4. A contingency plan was submitted in Mr. Cole's December 27, 1989, response. In this plan, Messrs. Donald H. Klein, Ralph D. Meece and Jeffrey A. Wineinger were listed as alternate emergency coordinators. These names, however, were not included on the "Job Titles Involved In Hazardous Waste Management" page submitted by Mr. Cole on April 16, 1991. Reconcile the differences in these two documents by either adding these names (under the appropriate job title) to the "Job Titles" page or change the contingency plan to reflect the name(s) of the current alternate emergency coordinator(s). Submit a copy of the revised "Job Titles" page or list of alternate emergency coordinators (whichever is applicable) to this Office.

Your response must be revised or supplemented as necessary to address these deficiencies and be submitted to this Office within fifteen (15) days.

Failure of your firm to respond fully and adequately, within the time specified, and document compliance with the hazardous waste management rules will result in escalated enforcement.

If you have any questions regarding this matter, please contact Ms. Pamela J. O'Rourke of this Office at AC 317/232-4464.

Very truly yours,

Dennis M. Zawodp, Chief

Enforcement Section

Hazardous Waste Management Branch Solid and Hazardous Waste Management

PJO/rmw

cc: Delaware County Health Department

Mr. Robert W. McClelland

Ms. Harinder Kaur, Office of Legal Counsel

Ms. Uylaine McMahon, U.S. EPA, Region V

Mr. Bill Wesley, U.S. EPA, Region V

Mr. Mike Wilhelm, IDEM



Ball Corporation

345 South High Street, Muncie, Indiana 47305-2326 (317) 747-6100 Reply to: P.O. Box 2407, Muncie, Indiana 47307-0407

April 16, 1991

Dennis M. Zawodni, Chief Enforcement Section Hazardous Waste Management Branch Solid and Hazardous Waste Management Indiana Department of Environmental Management 105 South Meridian Street PO Box 6015 Indianapolis IN 46206-6015



Dear Mr. Zawodni:

Your Notice of Inadequacy in Cause No. H-135 dated March 19, 1991 requires that Ball Corporation (EPA I.D. No. IND 000810713) provide certain information to your Office within 30 days of receipt. Specifically, you asked that we address alleged repeat violations, correct deficiencies in previously submitted documents, and provide additional information.

A response to, or an explanation of, each item follows. The order and numbering follows that of your letter. Where applicable, we have attached revised submissions, documentary information, requested material, etc. as exhibits.

Item 1 (page 1) Hazardous Waste Management Training Records

Attached as Exhibit A is a copy of the Hazardous Waste Management training outline which describes the initial and annual refresher training provided to employees involved in hazardous waste management activities. Included as Exhibit B are a list of employees involved in hazardous waste management activities at Ball Corporation and training records indicating they have received training in 1990.

Item 2 (page 2) Personnel Training Records

Attached as Exhibit C are job descriptions for each person assigned to a hazardous waste management position. Introductory and continuing training are addressed in each job description.

Item 3 (page 2) Unidentified Spill Residue

In order to identify the spill residue within the hazardous waste storage building, a sample of the residue was obtained and submitted to the Ball Analytical laboratory for analysis. The analytical laboratory submitted a portion of the sample to Sherry Laboratories for a metals analysis and a reactive cyanide/sulfide analysis. The metals scan was conducted to determine potential metals in the residue. Also, the Ball Analytical Laboratory analyzed a sample of the residue using the Toxicity Characteristic Leachate Procedure (TCLP) for metals to determine if the residue exhibited the hazardous waste toxicity characteristic.

Analytical results (copy attached as Exhibit D) indicate that the spill residue does not exhibit reactive or toxic characteristics. Additional hazardous waste determinations of the residue show that the material is not ignitable or corrosive (pH = 4.1). Also, the material is not a listed hazardous waste.

Records of weekly inspections conducted within the 90-day hazardous waste storage building indicate that leaking hazardous waste storage containers have never been present. Releases of hazardous wastes have not occurred since the building became a hazardous waste storage building. It is believed that the residue has been present since some time prior to the building becoming a 90-day hazardous waste storage building. Copper-containing hazardous wastes have never been stored within the 90-day hazardous waste storage building.

The spill residue was scraped from the floor using a steel putty knife and wire brush. The scrapings and dust generated from the cleaning process were placed in a five gallon, lugged cover, steel pail. A small quantity of the residue was embedded within the concrete pores. This material was removed by washing the affected floor area with a small amount of a detergent and water mixture (50:50 concentration). This small amount of liquid was removed from the floor with a shop towel. The shop towel was placed in the same five gallon pail as the scrapings. Arrangements have been made with the Indianapolis Heritage Treatment Center for disposal.

Items 4 & 5 (page 2) Lack of Telephone and Internal Alarm

A telephone was supplied within the 90-day hazardous waste storage building. However, the telephone and associated wiring was a potential source of ignition to ignitable hazardous wastes stored within the building. Therefore, it was disconnected and removed from service.

329 IAC 3-17-3(1) and 329 IAC 3-17-5(a) discuss the availability and use of internal alarm systems. In place of the telephone, an aerosol horn has been placed within the building to serve as an alarm. Since the time of the inspection, the aerosol horn has been received and is in place within the 90-day hazardous waste storage building. Attached as Exhibit E is a photograph of the aerosol horn in place within the building. The 90-day hazardous waste storage building is located approximately 60 feet from the security guard house. A guard is on

duty at this location 24 hours a day, every day of the year. Two separate telephone lines and a 2-way radio system are available within the guard house. Exhibit F is a diagram showing the location of the hazardous waste storage building in proximity to the guardhouse.

The 90-day hazardous waste storage building is occupied only when personnel are transporting containers of hazardous waste in or out of the building, and during weekly inspections. The building is occupied only during normal working hours.

A procedure has been established for persons working in the 90-day hazardous waste storage building to operate the aerosol horn to alert the guard of an emergency situation. If necessary, this person can also go to the guard house to use the telephones to notify the emergency coordinator of emergency situations.

Item 6 (page 3) Inspection Schedule

Our inspection schedule instructions addressed holidays by the use of the word "daily." We have conducted the inspections daily since being so required. The phrase "and weekends" was included in an attempt to preclude misunderstanding. At your request, we have added "and holidays." A copy is attached as Exhibit G.

Item 7 (page 3) Site Assessment Plan
The site assessment plan (Exhibit H) has been revised to address deficiencies (a-h). A discussion of each deficiency and how it was addressed in the plan is provided below.

- a. "Clarify if the 'Vegetation Control with 2,4-D' drum was empty prior to rinsing. If not, estimate the quantity of product remaining." The drum was empty per RCRA regulation of residues of hazardous waste in empty containers, 40 CFR 261.7, even though the material in question was not a waste. Vegetation Control with 2,4-D is pumped from its original container until no more can be removed in that manner. The remaining product, which is less than 1 inch, is rinsed from the container for further application. Similar language has been provided in Section 2.1(B) of the plan.
- b. "Justify why Ball Corporation will not be analyzing for the weed killer or modify the plan to address the presence of 2,4-D. The presence of residuals from legal use does not legitimize illegal disposal in the same area." Dilute weed killer was applied to the railroad tracks, not disposed. Analysis for disposal of waste weed killer in the soil is unwarranted. Pesticide use at Ball Corporation has been and continues to be in conformance with the requirements of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) regulations (40 CFR 165).

 **Add Market Marke

FIFRA regulations direct owners of excess pesticides to exhaust one of two avenues prior to final disposal. In the case of Vegetation Control with 2,4-D, Ball utilizes the first option: use of the pesticide for the purpose originally intended, at the prescribed dosage rates. Vegetation Control with 2,4-D may be, and has been, applied without a diluent. The regulations further state that residues and rinse liquids should be added to spray mixtures in the field. Therefore, application of a dilute form of weed killer on the railroad tracks, for the purpose of killing weeds, is within both the scope and the intent of FIFRA. Similar language has been provided in Section 2.1(B) of the plan.

- c. "Explain how the disposal area was determined to be contained within the 50 X 50 foot gridded area." Discussions with employees responsible for disposal of mineral spirits on the railroad tracks were used to estimate the 50 X 50 foot "study area". Completion of the site assessment activities will determine whether contamination exists, and if so, whether it is contained within the 50 X 50 foot area. Section 3.0 of the plan has been clarified by distinguishing between the study area and the sampling grid.
- d. "A 14 foot grid interval over a 50 X 50 foot area results in 16 grid points instead of 9. The points should be numbered and at least 4 chosen as sample points based on a random number table." A 16-point sampling grid with an interval of 14 feet between points was used to position the original 9 boring locations identified in figure 3.

The purpose of the site assessment is to determine the existence and/or extent of soil which may contain mineral spirits. Four randomly located sample borings would not provide enough information to determine the extent of contamination, if present. In fact, positive results would only necessitate additional investigations. To perform the initial investigation in a manner which maximizes the possibility of it being the only investigation, 16 sample borings will be located uniformly: one at each of the sixteen grid points.

In addition, the 14 foot grid interval has been increased to the 20 foot interval allowed by Item 16(e) of the Agreed Order. The larger grid area will allow for more cost effective sampling. The borings are numbered in ascending order, B1-B16, from left to right beginning at the northwest corner of the study area (see Figure 3). Both Section 3.0 and Figure 3 of the plan have been modified accordingly.

e. "The last paragraph of Section 3.1 should be clarified to state that contamination of the 24 inch level will trigger analysis of the 36, 48 and 60 inch samples." Sections 3.1-3.3 of the plan have

been completely altered to make sampling, analysis and determination straightforward and cost effective for the identification of mineral spirits in the soil. The modified version eliminates the need for clarification as requested.

- f. "The 0-6 inch samples shall be analyzed if the sample is not all gravel. If the 0-6 inch sample is not analyzed and there is contamination at the 6-12 inch level, then the overlying soil or gravel shall be considered contaminated." Section 3.1 of the plan has been changed to incorporate the intent of the above language.
- g. "Revise figure 3 to include 16 grid points and identify which points will be sampled." See item "d" above.
- h. "In Section 3.3 explain if a sample will be considered to be contaminated if reanalysis is positive but the second analysis is negative." Because of the modifications discussed in "e" above, this is no longer an issue.

Item 8 (page 4) Personnel Training Record

Attached as Exhibit I is a copy of the revised personnel training record which includes Items 8.a. and 8.b. regarding procedures for inspection, repair and replacement of emergency equipment and use of alarm systems. Item 8.c., shutdown of operations, is not applicable.

Item 9 (page 4) Diagram Identification in the Contingency Plan

The diagram shows the evacuation route from a hazardous waste generating area (accumulation and storage location) to the outside of the building.

Attached as Exhibit J is a copy of the revised diagram.

<u>Item 10 (page 4) Contingency Plan Submittals</u>

Order Number 12 of Cause Number H-135 states that a copy of Ball Corporation's Contingency Plan must be submitted to the local police department, fire department, hospital, and the State and local emergency response teams upon approval of the plan by the IDEM's Office of Solid and Hazardous Waste Management.

To date, Ball Corporation has not received a notice of approval from the IDEM for the Contingency Plan, and has therefore not submitted the plan to the said agencies. Ball Corporation has attempted to make arrangements with the local fire department, police department, and hospital as required by Order Number 9. Each agency has been notified that a copy of the Contingency Plan will be provided to them, if desired, upon approval of the plan by the State (IDEM). Attached as

Exhibit K are copies of the letters sent to the agencies as required by Order Number 9.

Item 1 (page 4) Inspection Logs

Copies of the interior and exterior inspections $\log s$ for the requested time period are attached as Exhibit L.

Item 2 (page 4) Clarification for Implementation of the Contingency Plan

The contingency plan has been revised to indicate that employees are not responsible for implementing the Contingency Plan. The emergency coordinator will implement the contingency plan. Any response activities necessary will be supervised and/or coordinated by the person(s) designated as the Emergency Coordinator.

A copy of this portion of the Contingency Plan is attached as $\operatorname{Exhibit} M$.

Item 3 (page 5) Emergency Equipment Testing and Maintenance Procedures

Attached as Exhibit N is a copy of the emergency equipment testing and maintenance procedures.

We trust that our response corrects or addresses in full the alleged repeat violations, deficiencies and the requests for additional information. If you have any questions or require further explanation or clarification, please telephone me at (317) 747-6283.

Sincerely.

Richard H. Cole, Jr.

Senior Chemical Information Analyst

Attachments

EXHIBIT A

BALL CORPORATION HAZARDOUS WASTE MANAGEMENT TRAINING PROGRAM

PURPOSE

The purpose for conducting hazardous waste management training is to emphasize to employees the hazards associated with handling hazardous waste. This training program was also developed to fulfill the requirements of the Resource Conservation and Recovery Act for initial and annual refresher training of each person assigned hazardous waste management duties. This training program is provided to employees within six months after assignment to duties involving hazardous waste management and annually thereafter.

OBJECTIVES

Upon completion of this training program, the employee will be able to:

- A) Define the regulations, specifically the Generator regulations, under the Resource Conservation and Recovery Act;
- B) Define and identify the general categories of hazardous wastes and characteristics of each;
- C) Avoid the dangers associated with each type of hazardous waste;
- D) Understand the "Contingency Plan" requirements of RCRA;
- E) Utilize safe methods for responding to hazardous waste releases (fire, explosion, and spills);
- F) Use proper hazardous waste accumulation methods;
- G) Properly package, mark, label, and placard hazardous waste(s) prior to shipment;
- H) Properly manifest waste for shipment;
- Properly use, maintain and replace emergency response and communication equipment;

TOPICAL OUTLINE

- A. Hazardous Waste Training
 - 1. Resource Conservation and Recovery Act
 - a) Origin
 - b) Purpose
 - c) Requirements
 - 2. Hazardous Waste
 - a) Definitions
 - 1) Listed Wastes
 - 2) Characteristic Wastes
 - -Ignitable
 - -Corrosive
 - -Reactive
 - -Toxic
 - b) Types generated at the facility
 - 3. Waste storage procedures
 - a) Storage limits
 - b) Labeling
 - c) Hazardous mixtures
 - d) Storage environment
 - 4. Contingency Plan
 - a) Fires, explosions
 - b) Spills
 - c) Emergency coordinators
 - d) Evacuation
 - e) Proper use, care, maintenance, inspection and replacement of emergency equipment
 - 5. Alarm systems

B. Incident Response

- 1. Fire and explosions
 - a) alarm
 - b) escape route
 - c) extinguishing methods
- 2. Hazardous waste spills
 - a) Identification
 - -material
 - -quantity
 - -cause
 - b) Spill control
 - -containment
 - -absorption
 - -transfer
 - -neutralization

PRESENTATION

The hazardous waste management training will be given primarily through the use of a training film. The film covers those items described in Item A of the Hazardous Waste Training outline. The film is approximately 20 minutes in length. At the conclusion of the film, a brief summary of the film's contents will be highlighted including emergency evacuation routes, emergency equipment and its usage, and locations of emergency equipment. Additionally, specific information regarding hazardous wastes generated in each department, example labels and manifests, emergency coordinators and the contingency plan are reviewed. The training program concludes with a question and answer session. The training program will be conducted by one of Ball Corporation's Environmental Engineers.

EXHIBIT B

JOB TITLES INVOLVED IN HAZARDOUS WASTE MANAGEMENT

Chemist (includes Associate, Lead, Principal and Technician)
Laborer
Manager
Mechanic
Metallurgist
Microscopist
Operator (includes Duplicator, Press, Printer, Typesetter)
Superintendent
Supervisor

NAMES OF EMPLOYEES WITH THE ABOVE JOB TITLES

CHEMIST, METALLURGIST, or MICROSCOPIST

Batdorff, David
Burton, Ron
Caylor, James
Edwards, Donald
Fisher, Doris
Gilliam, Steve
Hennessee, John
Larson, Larry
McLaren, Robin
Randall, Cynthia
Stone, Lee Ann

LABORER

Bass, Cynthia Branson, LaVora Crump, James Johnston, Cindy Petro, Leonard Snodgress, Ron White, Antonetta

MECHANIC

Bell, Chester √ Phillips, Hubert √

OPERATOR

Dodd, Brian
Garner, Deb
Grubbs, Sarah
Hobbs, Andrea
McCormick, Wayne
Shaw, Valerie
Taylor, Sondra
Upchurch, Pamela

MANAGER

Fowler, Harry

SUPERINTENDENT

Longfellow, Robert ✓ Wilson, Larry ✓

SUPERVISOR

Sciscoe, Debra / Thurman, Arlen / White, Toby / Wiemer, Sheila /

This is to certify that fund. tout , My decition my
has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was
trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on January 11,1990.
Instructors Signature: Seven R. Bell

/ ///
This is to certify that Apply A Musolu 1940 Sopi
has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
3) Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on January 10, 1940.
Instructors Signature: Save & Byll

This is to contifue that PUSSTER BOIL MERIURNIC
This is to certify that <u>CHESTER BELL</u> , <u>MCCHANIC</u> (name) (job title)
has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on January 10, 1998.
Instructors Signature: Flux R. Ball

This is to certify that Hubert Philippo , Michael (job title)
has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
3) Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on Lanuary 10, 1990.
Instructors Signature: Seven A. Ball

This is to certify that SHEILA WIEMER, SUPERVISOR PRINTING SERV. (name) (job title)
(name) (job title) / has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
3) Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on January 10, 1990.
Instructors Signature: Swin R. Ball

This is to certify that Debra D Scisson, araphics supervis
has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on January 10, 1990.
Instructors Signature: Sound Ball

This is to certify that BRIDN DDD, PRESS OPA. (name) (job title)
has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
3) Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on January 10, 1990.
Instructors Signature: Street Ball

This is to certify that <u>Wayne McCormick</u> , <u>Printer</u> (name) (job title)
has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
3) Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on January 10, 1946.
Instructors Signature: Seven R. Ball

This is to certify that ANDROA HORBE, DURLCATOR CHERATOR (name) (job title)
has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on Lanuary 10, 1990.
Instructors Signature: Swa R. Ball

(name) (job title)
has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on Lanuary 10, 1990.
Instructors Signature: Sweet Ball

This is to certify that Haueld J. Upchurch, Production Tech Jupes etter (name) (job title)
has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
3) Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on January 10, 1990.
Instructors Signature: Sauch. Bull

This is to certify that <u>Valeria</u> haw , <u>Press Conston</u> (name) (job title)
has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on January 10, 1990.
Instructors Signature: Force R-Bill

This is to certify that <u>Deb Carner</u> , <u>typesetter</u> (name) (Job title) has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:		
 Packaging, marking, labeling, and placarding of hazardous waste; 		
Personal protection with regard to the handling of hazardous waste;		
3) Proper use of emergency equipment;		
4) Use of communication equipment;		
5) Spill response;		
6) Fire and explosion response;		
7) Contingency Plan implementation;		
8) Proper manifesting of waste shipments;		
9) Emergency coordinator responsibilities.		
This training was given by Steven R. Ball on January 10, 1990.		
Instructors Signature: Frue R. Bull		

This is to certify that Sand Hould, front Shop (job title)		
(name) (job title) has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:		
 Packaging, marking, labeling, and placarding of hazardous waste; 		
Personal protection with regard to the handling of hazardous waste;		
3) Proper use of emergency equipment;		
4) Use of communication equipment;		
5) Spill response;		
6) Fire and explosion response;		
7) Contingency Plan implementation;		
8) Proper manifesting of waste shipments;		
9) Emergency coordinator responsibilities.		
This training was given by Steven R. Ball on January 10, 1990.		
Instructors Signature: Fee R. Ball		

This is to certify that JAMES CRUMP, reveril 64601		
has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:		
 Packaging, marking, labeling, and placarding of hazardous waste; 		
Personal protection with regard to the handling of hazardous waste;		
3) Proper use of emergency equipment;		
4) Use of communication equipment;		
5) Spill response;		
6) Fire and explosion response;		
7) Contingency Plan implementation;		
8) Proper manifesting of waste shipments;		
9) Emergency coordinator responsibilities.		
This training was given by Steven R. Ball on January 11, 1990.		
Instructors Signature: Stee R. Bell		

and the Sahara		
This is to certify that Intention on Whete (job title)		
has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:		
 Packaging, marking, labeling, and placarding of hazardous waste; 		
Personal protection with regard to the handling of hazardous waste;		
Proper use of emergency equipment;		
4) Use of communication equipment;		
5) Spill response;		
6) Fire and explosion response;		
7) Contingency Plan implementation;		
8) Proper manifesting of waste shipments;		
9) Emergency coordinator responsibilities.		
This training was given by Steven R. Boll on January 11, 1990.		
Instructors Signature: Steven R. Ball		

This is to certify that <u>Son moderal</u> , <u>lacon</u>		
has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:		
 Packaging, marking, labeling, and placarding of hazardous waste; 		
Personal protection with regard to the handling of hazardous waste;		
3) Proper use of emergency equipment;		
4) Use of communication equipment;		
5) Spill response;		
6) Fire and explosion response;		
7) Contingency Plan implementation;		
8) Proper manifesting of waste shipments;		
9) Emergency coordinator responsibilities.		
This training was given by Steven R. Ball on January 11, 1990.		
Instructors Signature: Seven R-Ball		

This is to certify that (name) (job title)
has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on January 11, 1990.
Instructors Signature: State R. Ball

This is	to certify that Ta Voia Barrer Caborer Plant
procedur	cessfully completed training relating to hazardous waste management res relevant to his/her job classification. The employee was in the following areas:
1)	Packaging, marking, labeling, and placarding of hazardous waste;
2)	Personal protection with regard to the handling of hazardous waste;
3)	Proper use of emergency equipment;
4)	Use of communication equipment;
5)	Spill response;
6)	Fire and explosion response;
7)	Contingency Plan implementation;
8)	Proper manifesting of waste shipments;
9)	Emergency coordinator responsibilities.
This tra	ining was given by Steven R. Ball on January 11, 1990.
Instruct	ors Signature: State R. Ball

This is to certify that Askert G. Lowate/Ass FAC; lities Supt. (name) (job title) has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:		
 Packaging, marking, labeling, and placarding of hazardous waste; 		
Personal protection with regard to the handling of hazardous waste;		
3) Proper use of emergency equipment;		
4) Use of communication equipment;		
5) Spill response;		
6) Fire and explosion response;		
7) Contingency Plan implementation;		
8) Proper manifesting of waste shipments;		
9) Emergency coordinator responsibilities.		
This training was given by Steven R. Ball on January 11,1990.		
Instructors Signature: See R. Bell		

has succ procedui	to certify that Pullif Bulme Impen, Mar Employee A elations, (name) (Job title) Cosere Plans cessfully completed training relating to hazardous waste management res relevant to his/her job classification. The employee was in the following areas:
1)	Packaging, marking, labeling, and placarding of hazardous waste;
2)	Personal protection with regard to the handling of hazardous waste;
3)	Proper use of emergency equipment;
4)	Use of communication equipment;
5)	Spill response;
6)	Fire and explosion response;
7)	Contingency Plan implementation;
8)	Proper manifesting of waste shipments;
9)	Emergency coordinator responsibilities.
This tra	ining was given by Steven R. Ball on January 11, 1990.
Instruct	ors Signature: State R. Bell

This is to certify that Holey hurman, Maint Supervisor
(name) (job title) has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on January 11, 1990.
Instructors Signature: State R. Bell

This is to certify that <u>James Lelupper</u> , <u>Process Engr.</u> (name) (job title) has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
3) Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on January 11, 1990.
Instructors Signature: Start R. Ball

This is to certify that (ynthin (andal), HSSN-Chymnt (name) (job title)
has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was
trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
3) Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on January 11,1990.
Instructors Signature: Seven R. Bell

This is to certify that RAMCAREN, PROSERTENTIST
has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
3) Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on January 11,1990.
Instructors Signature: Seven R. Bell

This is to certify that John Merinessee, With Metallurgest (name) (job title) has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
3) Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by <u>Steven R. Ball</u> on <u>January 11,1990</u> .
Instructors Signature: Seven R. Bell

This is to certify that
(name) (job title) has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on Jonuary 11, 1990.
Instructors Signature: Steen R. Ball

This is to certify that mald Redwards, Microsconist (name) (job title) has successfully completed training relating to hazardous waste management
procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on January 11, 1990.
Instructors Signature: Steven R. Ball

This is to certify that william S. Gilliam Lead Tech vicio (name) (job title)
has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on January 11, 1990.
Instructors Signature: Save R. Ball

This is to certify that Toby (. WHITE, SUPERVISOR PLA
(name) (job title) has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on January 11, 1990.
Instructors Signature: Swe P. Ball

This is to certify that Capthia Bess Lafor Plant Serve
(name) (job title) has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
3) Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by Steven R. Ball on January 11, 1990.
Instructors Signature: Steve R. Bell

This is to certify that Kend

Thanks Enviol
(name) (job fitle) has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was
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 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
3) Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by $2 1004 B.80$ on $36/90$.
Instructors Signature: Sabo

This is to certify that Ponald C. Ruston, Manager Analata (name) (Job title)
has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
3) Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by $\angle NOA$ $B.80$ on $3/6/90$.
Instructors Signature: Sobo

This is to certify that <u>James</u>	(name) (job title)
has successfully completed training procedures relevant to his/her job trained in the following areas:	(name) (job title) g relating to hazardous waste management classification. The employee was

- Packaging, marking, labeling, and placarding of hazardous waste;
- Personal protection with regard to the handling of hazardous waste;
- Proper use of emergency equipment;
- 4) Use of communication equipment;
- 5) Spill response;
- 6) Fire and explosion response;
- Contingency Plan implementation;
- 8) Proper manifesting of waste shipments;
- 9) Emergency coordinator responsibilities.

This training was given by LINDA B.80 on 36/90

Instructors Signature:

has succ procedu	to certify that Lee Ann Stone, Chemist (name) (job title) cessfully completed training relating to hazardous waste management res relevant to his/her job classification. The employee was in the following areas:		
1)	Packaging, marking, labeling, and placarding of hazardous waste;		
2)	Personal protection with regard to the handling of hazardous waste;		
3)	Proper use of emergency equipment;		
4)	Use of communication equipment;		
5)	Spill response;		
6)	Fire and explosion response;		
7)	Contingency Plan implementation;		
8)	Proper manifesting of waste shipments;		
9)	Emergency coordinator responsibilities.		
This training was given by $\frac{1004}{800}$ on $\frac{3/6/90}{90}$.			
Instruct	tors Signature: Sabo		

Haved J. Lathort				
This is to certify that DAVE BATTORFF, ASSICIATE CHEMIST				
(name) (job title) has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:				
 Packaging, marking, labeling, and placarding of hazardous waste; 				
Personal protection with regard to the handling of hazardous waste;				
3) Proper use of emergency equipment;				
4) Use of communication equipment;				
5) Spill response;				
6) Fire and explosion response;				
7) Contingency Plan implementation;				
8) Proper manifesting of waste shipments;				
9) Emergency coordinator responsibilities.				
This training was given by $\frac{1 \times 04}{8.80}$ on $\frac{3/6/90}{90}$.				
Instructors Signature: Sabo				

Hazardous Waste Training Form				
This is to certify that (name) (name) (name) (job title) (procedures relevant to his/her job classification. The employee was				
trained in the following areas:				
 Packaging, marking, labeling, and placarding of hazardous waste; 				
Personal protection with regard to the handling of hazardous waste;				
3) Proper use of emergency equipment;				
4) Use of communication equipment;				
5) Spill response;				
6) Fire and explosion response;				
7) Contingency Plan implementation;				
8) Proper manifesting of waste shipments;				
9) Emergency coordinator responsibilities.				
This training was given by $\angle 1004$ $B.80$ on $36/90$.				
Instructors Signature:				

This is to certify that Ding Lion Assachemist
(name) (job title) has successfully completed training relating to hazardous waste management procedures relevant to his/her job classification. The employee was trained in the following areas:
 Packaging, marking, labeling, and placarding of hazardous waste;
Personal protection with regard to the handling of hazardous waste;
3) Proper use of emergency equipment;
4) Use of communication equipment;
5) Spill response;
6) Fire and explosion response;
7) Contingency Plan implementation;
8) Proper manifesting of waste shipments;
9) Emergency coordinator responsibilities.
This training was given by $2 NOA B.80$ on $36/90$.
Instructors Signature: Sabo

EXHIBIT C

BALL CORPORATION-HIGH STREET AND MACEDONIA COMPLEX JOB DESCRIPTIONS FOR HAZARDOUS WASTE MANAGEMENT

Laborer/Mechanic/Operator

- Follows directions from supervisor for handling, pouring, separating, labeling, and closing containers.
- Follows the directions of the primary emergency coordinator, secondary emergency coordinator, and supervisor during emergencies.
- Handles hazardous waste as required (includes pouring wastes, moving small containers).
- Transports hazardous waste from satellite areas to 90-day storage areas.
- Labels and marks hazardous waste containers.
- Opens and closes waste containers.
- Receives and participates in initial and annual hazardous waste management training as described within the Ball Corporation Hazardous Waste Management training program outline.

- High school education or equivalent work experience
- Communication skills
- Knowledge of proper hazardous waste handling, storage and labeling procedures
- Knowledge of correct response to emergencies involving hazardous waste

Chemist, Microscopist, Metallurgist

- Follows directions from supervisor for handling, pouring, separating, labeling, and closing containers.
- Follows the directions of the primary emergency coordinator, secondary emergency coordinator, and supervisor during emergencies.
- Handles hazardous waste as required (includes pouring wastes, moving small containers).
- Transports hazardous waste from satellite areas to 90-day storage areas.
- Labels and marks hazardous waste containers.
- Opens and closes waste containers.
- Receives and participates in initial and annual hazardous waste management training as described within the Ball Corporation Hazardous Waste Management training program outline.

- Four year college education or equivalent work experience
- Work experience in an analytical labortory
- Communication skills
- Knowledge of proper hazardous waste handling, storage, and labeling procedures
- Knowledge of correct response to emergencies involving hazardous waste

Manager of Facilities

- Directs activities during a chemical spill, fire, reaction, or release.
- Decides on strategies and objectives to safely respond to emergencies.
- Interprets the hazards associated with the type of emergency.
- Calls authorities including the local police and fire department and Local Emergency Planning Committee.
- Coordinates with Corporate Environmental Services in contacting the State Emergency Response Agency, National Response Center, and the hazardous material cleanup contractor.
- Determines the necessity for evacuation of plant personnel and immediate neighborhood.
- Commits manpower and money for cleanup of hazardous materials/waste releases.
- Receives and participates in initial and annual hazardous waste management training as described within the Ball Corporation Hazardous Waste Management training program outline.

- High school or college education, or equivalent work experience
- Supervision capabilities
- Work experience in a supervisory capacity
- Communication skills
- Knowledge of proper hazardous waste handling, storage, and labeling procedures
- Knowledge of correct response to emergencies involving hazardous waste

Superintendent

- Directs activities during a spill, fire, reaction, or release involving hazardous waste.
- Decides on strategies and objectives to safely respond to emergencies.
- Interprets the hazards associated with the type of emergency.
- Notifies authorities, including the fire and police department, and Local Emergency Planning Committee when reportable quantities of hazardous materials/wastes occurs.
- Coordinates with Corporate Environmental Services in contacting the State Emergency Response Agency, National Response Center and hazardous material clean-up contractor.
- Determines the necessity for evacuation of plant personnel and immediate neighborhood.
- Submits written reports to the proper authorities.
- Commits manpower and money for cleanup of hazardous materials/waste releases.
- Receives and participates in initial and annual hazardous waste management training as described within the Ball Corporation Hazardous Waste Management training program outline.

- High school or college education, or equivalent work experience
- Supervision capabilities
- Work experience in a supervisory capacity
- Communication skills
- Knowledge of proper hazardous waste handling, storage, and labeling procedures
- Knowledge of correct response to emergencies involving hazardous waste

Supervisor

- Responsible for showing that all materials that are moved, transferred, or loaded are marked, packaged, and classified properly.
- Assures that containers of hazardous wastes are being moved in a safe manner.
- Assures that proper compatibility is maintained.
- Reports leakage or spillage of hazardous materials or wastes to emergency coordinators.
- Helps direct laborers in a spill situation.
- Familiar with emergency operation procedures and implementation.
- Assures that the health and safety procedures are followed on a daily basis.
- Performs the daily and weekly inspections of the hazardous waste storage areas.
- Receives and participates in initial and annual hazardous waste management training as described within the Ball Corporation Hazardous Waste Management training program outline.

- High school or college education, or equivalent work experience
- Supervision capabilities
- Work experience in a supervisory capacity
- Communication skills
- Knowledge of proper hazardous waste handling, storage, and labeling procedures
- Knowledge of correct response to emergencies involving hazardous waste

EXHIBIT D



Laboratory Study

Packaging Laboratory Services

April 3, 1991

To:

Steve Ball

From:

Diane Conn () (,

Log Number:

9180-91

Abstract:

A sample of unknown spilled material found in the next account storage area was analyzed for analytes expected and then extracted for TCLP metals. The extraction for barium, chromium and lead found non-detected and trace amounts.

address?

Sample/Background:

A solid unknown spilled material found in the hazardous waste storage area was received for analysis. Project charge RQ81733.

Objective:

To perform a metals scan to identify and quantify metals of arsenic, cadmium, copper, chromium, barium, nickel, lead and selenium.

To perform reactive cyanide and sulfide analysis per SW846. -> reactivity

To perform solid waste TCLP extraction and analyze for lead, chromium and barium.

Procedure:

Sample was acidified and digested for metals scan. Solution sent to Sherry Lab for metals analysis by EPA 200.7 method.

Solid sample sent to Sherry Lab for Reactive Cyanide and Reactive Sulfide by SW846-7.3.

Sample extracted for solid waste analysis SW846, procedure 1311 and analyzed by the given procedures for barium, chromium and lead.

Results:

Results are listed in the tables that follow.

Discussion:

The solid material total digestion showed mostly copper, lead, barium and chromium and nickel. The TCLP extract of the solid showed non-detected and trace amounts of hazardous metals tested. Sample was well below regulatory levels for these metals.

Attachment

cc: R. Burton RD&E-92 Rev. 9/90

Central File

TABLE 1: ANALYSIS OF DIGESTED UNKNOWN SPILL MATERIAL BY SHERRY LABS

<u>Analyte</u>	Concentration (ppm)	
As	<5.0	
Ba	121.5	
Cd	2.55	
Cr	9.85	
Cu	40,700.	
Ni	34.9	
Pb	13.95	
Se	<5.0	
Reactive Cyanide	<10.0	
Reactive Sulfide	<20.0	

TABLE 2: TCLP EXTRACTION ANALYSIS OF UNKNOWN SPILL MATERIALS PERFORMED BY ANALYTICAL LAB, BALL

Analyte	Concentration. ppm Spill		% <u>Recoveries</u>
	Sample	Blank	
Ba	ND<0.4	ND<0.4	103
Cr	T<0.24	ND<0.10	100
Pb	T<0.41	ND<0.16	95

EXHIBIT F

* Bill:

Exhibit E is a photograph of the aerosol horn; did not include this because it did not photocopy well.

20

MACEDONIA COMPLEX NORTH SIDE

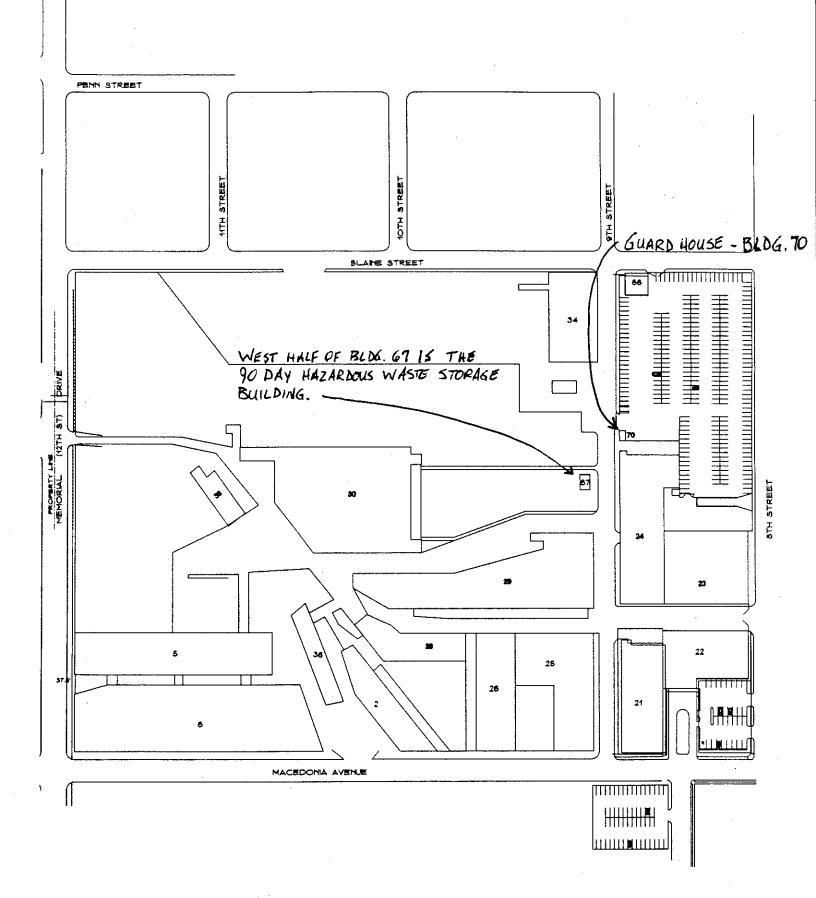


EXHIBIT G

BUILDING 48 INSPECTION SCHEDULE

Building 48, located on the south side of Ball Corporation's Macedonia Avenue complex in Muncie, Indiana, will be inspected as specified below:

1. Daily by a Ball Security Guard to assure that the doors are locked. The inspection shall occur at any time from midnight to midnight during the day and shall include weekends and holidays.

The lock on the sliding door on the north end of the building, the lock on the mandoor portion of the overhead door on the south side, and the lock on the box containing the controls to the overhead door on the south side will be visually inspected. Each inspection will be recorded in the Building 48 Exterior Inspection Log.

If any lock is found to be unlocked, the building will be inspected to determine if anyone is inside. If not, the lock will be closed and an entry made in the Comments section of the log. If anyone is found inside, it will be determined if they have been authorized to enter, and the appropriate notation made in the log.

2. Weekly by a member of Environmental Services to assure that no hazardous waste has been put into the building and that the interior of the building is secure. The inspection shall be conducted once each calendar week from midnight Saturday to midnight Saturday and shall consist of entering the building, turning on the lights, and walking into each cell. In addition, the binder containing the hazardous waste manifests will be determined to be present at the Guard Station at Ninth and Blaine.

All inspections will be recorded in the Building 48 Interior Inspection Log, which will be kept at the Guard Station with the manifests.

Any abnormal situation, such as leaks, evidence of unauthorized entry, etc., will be noted in the Comments section. If any situation is discovered that requires immediate attention, the appropriate action will be taken as soon as possible.

This schedule is effective as of September 16, 1989. Revised April 11, 1991 to correct IDEM notice of deficiency and to reflect relocation of manifests.

EXHIBIT H

SITE ASSESSMENT PLAN Ball Corporation

Muncie, Indiana

1.0 Introduction

This Site Assessment Plan describes the procedures to be used to determine the existence and/or extent of soil which may contain mineral spirits in a suspect area identified by an August 1986 Indiana Department of Environmental Management (IDEM) inspection. This plan was developed in response to item 16 in the IDEM, Office of Solid and Hazardous Waste Management, Cause No. H-35, Agreed Order. Sample collection, sampling equipment, protocol and recordkeeping requirements, analytical methodology, statistical analysis and criteria for determining the presence of mineral spirits will be discussed in detail.

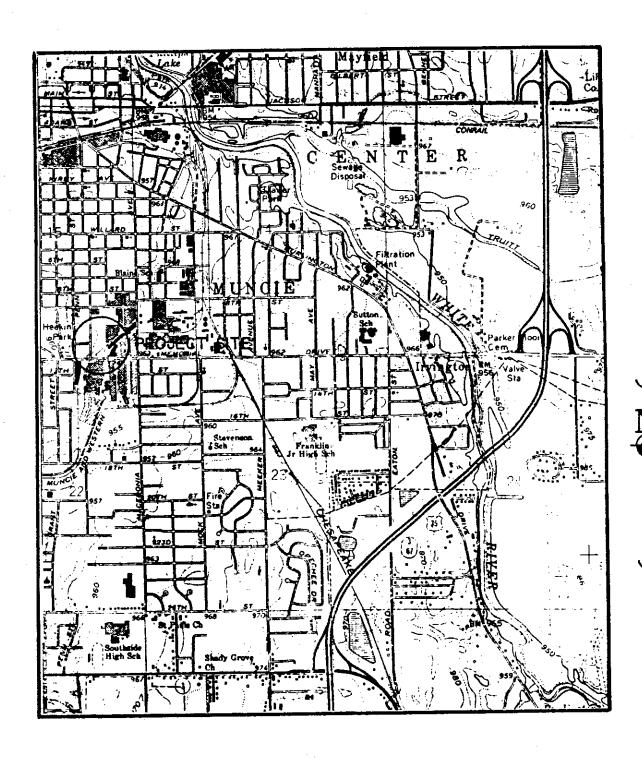
2.0 Facility and Site Description

For many years Ball Corporation has operated a manufacturing facility at its Macedonia Avenue complex on the southeast side of Muncie, Indiana as shown in Figure 1. This 80 acre area was used for glass container manufacturing from 1888 until 1962. More recently, it has been used for the production of metal lids for home canning jars, the production of plastic containers, plastisol manufacturing, research laboratories, offices and other storage.

2.1 Site Assessment

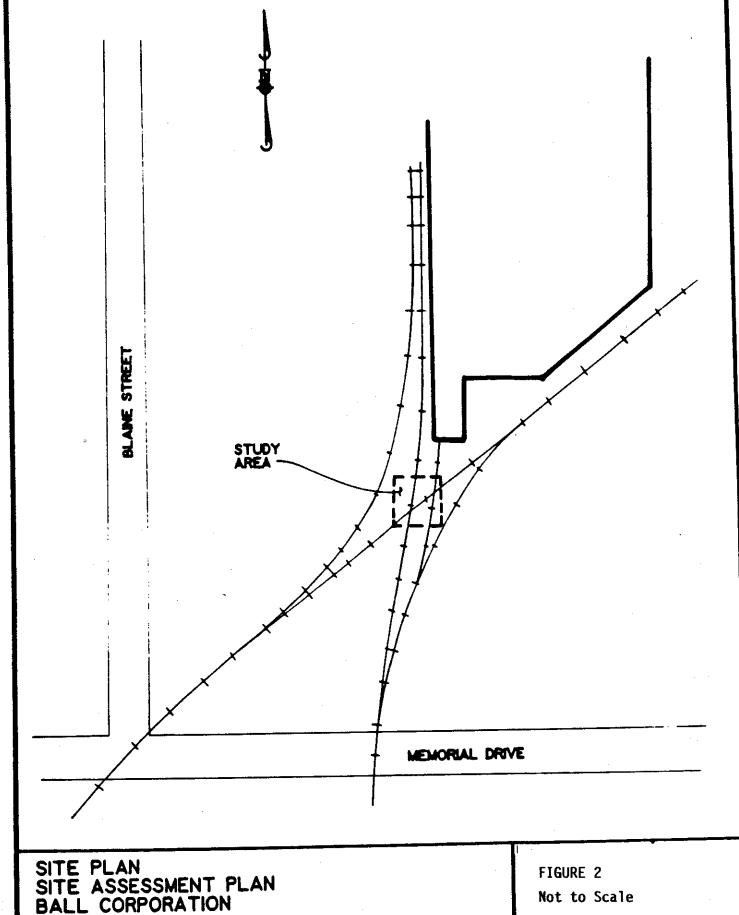
A. Mineral Spirits

During the IDEM inspection, an area directly south of the lid manufacturing building (Building 30) was identified as the site where waste mineral spirits had been discarded. Discussions with plant personnel indicated that an estimated 10 to 20 gallons were discarded approximately every three months onto an area in and around the railroad tracks which are still in use. This area is shown in Figure 2. Soils will be assessed for the presence of mineral spirits.



VICINITY MAP SITE ASSESSMENT PLAN BALL CORPORATION MUNCIE, IN

FIGURE 1
Not to Scale



SITE PLAN SITE ASSESSMENT PLAN BALL CORPORATION MUNCIE, IN

B. Vegetation Control with 2,4-D

Within the same area along the railroad tracks, the IDEM inspector noted the rinsing of a drum of weed killer made by Share Corporation and marketed under the trade name of "Vegetation Control with 2,4-D". On page 6, item 32, of the Complaint, Notice of Opportunity for Administrative Review and Proposed Final Order, Cause No. C-040, IDEM states:

"Pursuant to 320 IAC 4.1-7-2, a generator is required to determine if his waste is hazardous. Based on information gathered by the Department,...there was no determination made on the waste weed killer residue (Share Crop [sic]) that was dumped on the ground near the railroad tracks."

Although the material in question was not a waste, the following information is provided. The contents of the weed killer include petroleum distillate, iso-octyl ester of 2,4 dichlorophenoxy acetic acid, bromacil (5-bromo-3-sec-butyl methyluracil), pentachlorophenol, and other chlorophenols. The iso-octyl ester of 2,4-D disintegrates rapidly when exposed to water and the half life of bromacil in the weed killer is approximately 6 months. A material safety data sheet for this material is located in Appendix A.

As documented in Appendix B, Share Corporation weed killer has been and continues to be routinely applied between April and May of each year to control growth along 3.28 miles of the railroad tracks which are located on Ball property. The railroad tracks where the weed killer was applied are still in use.

On August 12, 1986, that portion of the weed killer remaining in its original container which could not be pumped for spray-application, less than one inch, was rinsed from the container with water. The diluted weed killer was applied to the same area which receives a routine spray application. Application of the Share Corporation weed killer has been and continues to be a legal process. Dilute weed killer applied for the purpose of killing weeds, is not a waste per the Federal Insecticide,

Fungicide and Rodenticide Act regulations and does not constitute disposal. Sampling and analysis of soils for the legal application of weed killer residues is unwarranted.

3.0 Determination of Mineral Spirits in the Soil

A grid system approach will be used to sample the soil. The exact location of the sixteen soil borings were generated using the guidance provided in Exhibit A of the Agreed Order, "DRAFT Instructions for the Preparation of Closure Plans for Interim Status RCRA Hazardous Waste Facilities, Indiana Department of Environmental Management, Office of Solid and Hazardous Waste Management, 1988". To assure adequate characterization of the extent of mineral spirits in the study area, a uniform pattern of sampling was chosen. The sampling grid employed over the 50 X 50 foot study area was devised using the following formula for areas less than 3 acres:

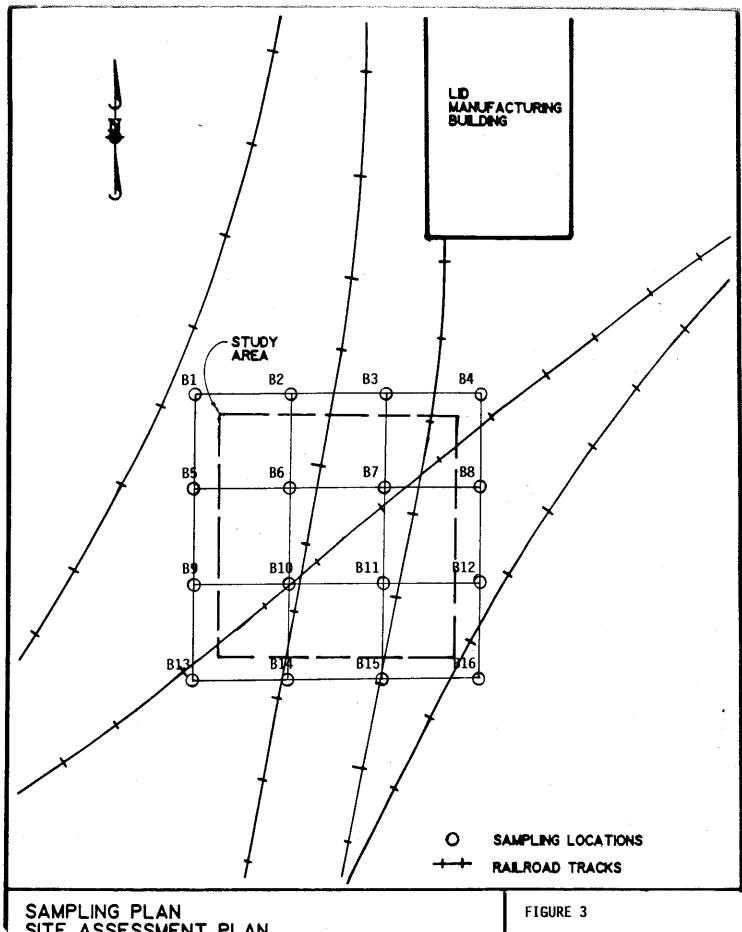
$$GI=(A/11)^{0.5/2}$$

The grid interval calculates to be 14 feet with 16 grid points within the study area. As allowed by Item 16(e) of the Agreed Order, the grid interval has been extended to 20 feet. The northern boundary of the study area is located approximately 43 feet south of Building 30. Note that exact sample boring locations may vary slightly due to natural access restrictions. All boring locations are depicted in Figure 3.

All soil sampling will be conducted as specified in Section 3.1 and analyzed in accordance with Section 3.2.

3.1 Soil Sampling Procedures and Analytical Strategy

All soil borings will be performed using a modified California split-spoon sampler or similar sampling device which will collect an undisturbed sample. Samples will be collected continuously to a depth of 5 feet. All soil samples will be classified using the USDA textural classification system. All soil samples will be visually inspected for evidence of mineral spirits. Samples will not be composited. Boreholes will be backfilled with a bentonite and cement grout.



SAMPLING PLAN SITE ASSESSMENT PLAN BALL CORPORATION MUNCIE, IN

Not to Scale

The sampling equipment used to collect the soil samples will be decontaminated with a non-phosphate detergent while scrubbing with a stiff brush until all visible traces of soil are removed, and followed by a triple rinse with distilled water until no visible traces of detergent remain.

Chain of custody documentation shall be maintained, with the appropriate form being signed by the sampler upon collection and by subsequent personnel until and including receipt at the laboratory. One duplicate sample will be collected for every ten field samples. The duplicate samples will be analyzed for the same parameters as the other samples.

Analysis will be conducted on samples from the 0-6, 6-12, 12-18, 18-24, 24-36, 36-48 and 48-60 inch intervals. Individual samples from the 0-6 in level will not be analyzed if they consist entirely of gravel. Instead, each unanalyzed sample will be considered to have identical constituent concentrations to those found in their respective 6-12 inch samples. A maximum of 112 samples will be analyzed.

3.2 Laboratory Test Methods for Soil Samples

Soil samples will be tested for the presence of mineral spirits, by scanning for 6-12 carbon aliphatic volatile organics. Analyses shall be performed in adherence to Analytical Method 8240, as described in U.S. EPA Document SW-846, Third Edition, including the quality assurance/quality control standards, method blanks and laboratory spikes as specified.

The Laboratory Quality Assurance Project Plan for the laboratory conducting the analytical work will be submitted to the IDEM for approval once the laboratory has been selected.

3.3 Determination of Mineral Spirits in Soil Samples

The criteria for determining the presence of mineral spirits in soil samples shall be the method detection limit for EPA Analytical Method 8240,

specific to 6-12 carbon aliphatics. Any sample producing results above the criteria for determination shall be considered to contain mineral spirits.

4.0 Evaluation

The results obtained from the above described sampling and analysis will be evaluated. If no sample is found to contain mineral spirits by the criteria described in Section 3.3, the results will be submitted to the IDEM with a "no action" statement, and no further work will be conducted. If mineral spirits are found in the soil samples, and the results indicate that the extent of the mineral spirits has been adequately defined, the results will be submitted to the IDEM along with a remedial plan for the site. If mineral spirits are found in the soil samples, but the results show that the extent of mineral spirits has not been adequately defined, the results will be submitted to the IDEM along with a plan to extend the scope of the sampling horizontally and/or vertically as appropriate to allow full definition of mineral spirits.

4.1 Schedule for Site Assessment Activities

According to the Agreed Order:

Within thirty (30) days of notice of approval of the site assessment plan by the IDEM, Ball shall implement the plan as approved and in accordance with the time frames contained therein.

Within sixty (60) days of completion of the analyses, Ball shall submit cleanup or remedial action plan to the IDEM if the results of the site assessment plan indicate it is necessary.

The remedial action plan shall include the results of the analyses, chain-of-custody information, and QA/QC records;

Address all areas determined by analyses to be contaminated;

Address the ground water, if it is determined to be affected;

Include a soil sampling and analysis plan to be performed after the cleanup has been done which verifies that all mineral spirits have been removed;

Include a time frame for implementation of the cleanup plan.

Within sixty (60) days of notice of approval by the IDEM, Ball shall implement the cleanup plan as approved and in accordance with the time frames contained therein.

Within sixty (60) days of completion of the cleanup, Ball shall submit certification by an independent registered professional engineer that the cleanup has been completed as outlined in the approved plan.

APPENDIX A

U.S. DEPARTMENT OF LABOR Occupational Safety and Health Administration

MATERIAL SAFETY DATA SHEET

REQUIRED UNDER U.S. DEPT. OF LABOR SAFETY AND HEALTH REGULATIONS FOR SHIP REPAIRING, SHIP-BUILDING AND SHIPBREAKING (29 CFR 1915, 1916, 1917), AND AS ADOPTED UNDER OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970, SECTION 4, (b) (2), (29 CFR 1910).

SECTION I

Manufacturer:
SHARE CORPORATION
P.O. BOX 23053
MILWAUKEE, WISCONSIN 53223

Emergency phone: (414) 355-4000

Ref. No. VC24WIATLA320 date of input: 2/24/1986

Trade names and synonyms: VEGETATION CONTROL WITH 2,4-D

Chemical name / synonyms:

Chemical family:

Formula:

LIQUID HERBICIDE MIXTURE

EPA REG. NO. 10088-68-11547 EPA EST. NO. 10088-WI-1

***** SECTION II - HAZARDOUS INGREDIENTS ********

% compos	sition		TLV
500	8	100	ppm
acid			
1.09	%	10	ppm
		1	ppm
0.09	8	1	bbw
0.98	%	1	ppm
0.29	%		
	96.75 acid 1.09 0.80 0.09	% composition 96.75 % acid 1.09 % 0.80 % 0.09 % 0.98 % 0.29 %	96.75 % 100 acid 1.09 % 10 0.80 % 1 0.09 % 1

****** SECTION III - PHYSICAL DATA ******

Boiling point(°F): N/A Specific gravity: 0.88 pH: N/A Vapor pressure(mm Hg): NOT DET. % volatile(volume %): 99
Vapor density(air=1): NOT DET. Evaporation rate Solubility in water: INSOLUBLE (__ether___=1): N/A Appearance and odor: GOLDEN BROWN LIQUID, FUEL OIL/SOLVENT ODOR.

****** SECTION IV - FIRE AND EXPLOSION HAZARD DATA *******

Flash Point (°F): 155

(test method): CLOSED CUP

Upper: N/A

Extinguishing media: FOAM, CARBON DIOXIDE OR DRY CHEMICAL

Special fire fighting procedures: COOL CONTAINERS IN VICINITY OF

FIRE WITH WATER FOG. FIREFIGHTERS MUST USE FULL PROTECTIVE

GEAR INCLUDING SELF-CONTAINED BREATHING APPARTUS.

Unusual fire and explosion hazard: NOME

******* SECTION V - HEALTH HAZARD DATA #**********

Threshold limit value: NOT ESTABLISHED

Effect of overexposure: INHALATION: IRRITATION OF RESPIRATORY
TRACT. SKIN: PROLONGED OR REPEATED EXPOSURE CAN CAUSE
IRRITATION OR REDNESS. EYES. SEVERE IRRITATION. INGESTION:
CASTROINTESTINAL IRRITATION, NAUSBA, DIZZINESS, HARMFUL IF
SWALLOWED.

Emergency and first aid procedures: EYES: FLUSH WITH PLENTY OF COOL WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS, OBTAIN MEDICAL ATTENTION.

INGESTION: SEEK IMMEDIATE MEDICAL ATTENTION. DO INDUCE VOMITING.

INHALATION: REMOVE VICTIM TO FRESH AIR. ADMINISTER ARTIFICAL RESPIRATION IF INDICATED AND CALL A PHYSICIAN IMMEDIATELY.

SKIN: REMOVE CONTAMINATED CLOTHING AND LAUNDER BEFORE RE-USE. WASH WITH PLENTY OF SOAP AND WATER

****** SECTION VI - REACTIVITY DATA **************

Stability: STABLE Conditions to avoid: HIGH TEMPERATURES
Incompatibility: STRONG OXIDIZING AGENTS
Hazardous decomposition products: THERMAL DECOMPOSITION MAY
GENERATE CO, CO, HCL and CHLORINE GAS.
Hazardous polymerization WILL NOT OCCUR.
Conditions to avoid: NOT APPLICABLE.

****** SECTION VII - SPILL OR LEAK PROCEDURES ********

Steps to be taken if material is released or spilled: VENTILATE AREA THROUGHLY. WEAR PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN. SOAK UP ON ABSORBANT MATERIAL AND STORE IN A PROPERLY LABELLED CLOSED CONTAINER TO AWAIT DISPOSAL. Waste disposal method: CONSULT LOCAL ENVIRONMENTAL AUTHORITIES.

****** SECTION VIII - SPECIAL PROTECTION INFORMATION *******

Respiratory protection: USE WITH ADEQUATE VENTILATION. USE NIOSH APPROVED RESPIRATOR TO AVOID BREATHING SPRAY MISTS.

Ventilation -Local exhaust: RECOMMENDED -Mechanical: RECOMMENDED

Protective gloves: RUBBER GLOVES

Eye protection: CHEMICAL GOGGLES

Other protective equipment: PROTECTIVE CLOTHING, EMERGENCY SHOWER AND EYE WASH STATION.

****** SECTION IX - SPECIAL PRECAUTIONS **********

Precautions to be taken in handling and storage: STORE IN COOL, DRY PLACE, AWAY FROM HEAT AND OPEN FLAME. DO NOT CONTAMINATE WATER, FOOD FEED, OR SEED BY STORAGE OR DISPOSAL. WASH THOROUGHLY AFTER USAGE.

Other precautions: KEEP OUT OF REACH OF CHILDREN.

APPENDIX B



February 28, 1990

TO:

L. L. Bobo

FROM:

R. G. Longfellow

SUBJECT:

SPRAYING OF RAILROAD TRACKS

In reply to your question on spraying railroad tracks at the Macedonia Complex, we normally start spraying in April and are usually finished by May.

We have 3.28 miles of track to spray along with the area near Building #30. This is done each spring and sometimes needs two applications to completely kill off the weeds.

A copy of the Share Corporation Material Safety Data Sheet is attached for your files.

kss

Attachment

EXHIBIT I

HAZARDOUS WASTE MANAGEMENT TRAINING FORM

inis is to certify that	(name)	(job title)
has successfully completed procedures relevant to his trained in the following a	s/her job classification.	zardous waste management The employee was
1) Packaging, marking,	, labeling, and placardin	ng of hazardous waste;
2) Personal protection	n with regard to the hand	lling of hazardous waste;
 Proper use, inspect emergency equipment 	tion, maintenance, care a t;	and replacement of
4) Use of alarm and/or	communication equipment	;;
5) Spill response;		
6) Fire and explosion	response;	
7) Contingency Plan in	mplementation;	
8) Proper manifesting	of waste shipments;	
9) Emergency coordinat	tor responsibilities.	
This training was given by	· · · · · · · · · · · · · · · · · · ·	on
Instructor's Signature:		

EXHIBIT J

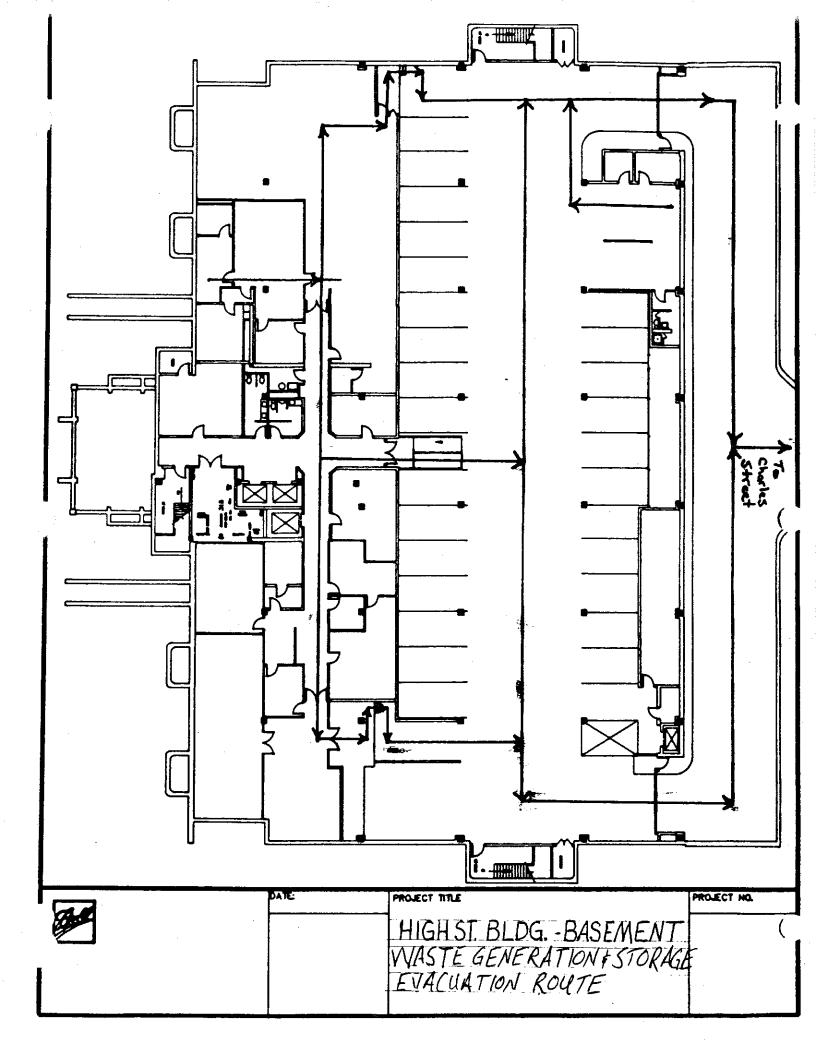


EXHIBIT K



Ball Corporation 345 South High Street, Muncie, Indiana 47305-2326 (317) 747-6100 Reply to PO Box 2407, Muncie, Indiana 47307-0407

January 18, 1990

Mr. Michael King Chief Muncie Fire Department 421 E. Jackson St. Muncie. Indiana 47305

Re: Contingency Plan Arrangements

Dear Mr. King,

This letter is being sent to you in accordance with Indiana Administrative Code 329 part 3-17-7. This section requires Ball Corporation, as a generator of hazardous waste, to attempt to make arrangements with local authorities outlining the role emergency responders will play in the event any hazardous waste emergency at our facilities should occur.

Therefore, Ball Corporation would like to know if the Muncie Fire Department should be one of the agencies notified in the event of an emergency situation arising at either of our facilities which are located at 345 S. High Street and at 9th and Blaine Streets in Muncie.

If you do want to be contacted, a copy of our current Emergency Contingency Plan will be forwarded to you as soon as it is approved by the State, along with a list of the hazardous waste that could be on site. Also, we would invite you to tour our facilities in order to familiarize yourself with our operations.

If your agency does not want to be notified, would you please so indicate in a letter to me for our records. If no response is received from you, Ball Corporation will assume that you do wish to be notified should an emergency arise.

If you have any questions or require any additional information to be able to make a decision concerning this matter, please contact me at 747-6286.

Sincerely,

Jeffrey A. Wineinger Environmental Engineer



Ball Corporation 345 South High Street, Muncie, Indiana 47305-2326 (317) 747-6100 Reply to: PO. Box 2407, Muncie, Indiana 47307-0407

January 18, 1990

Mr. Don Scroggins, Chief Muncie Police Department 220 E. Jackson St. Muncie, Indiana 47305

Re: Contingency Plan Arrangements

Dear Mr. Scroggins,

This letter is being sent to you in accordance with Indiana Administrative Code 329 part 3-17-7. This section requires Ball Corporation, as a generator of hazardous waste, to attempt to make arrangements with local authorities outlining the role emergency responders will play in the event any hazardous waste emergency at our facilities should occur.

Therefore, Ball Corporation would like to know if the Muncie Police Department should be one of the agencies notified in the event of an emergency situation arising at either of our facilities which are located at 345 S. High Street and at 9th and Blaine Streets in Muncie.

If you do want to be contacted, a copy of our current Emergency Contingency Plan will be forwarded to you as soon as it is approved by the State, along with a list of the hazardous waste that could be on site. Also, we would invite you to tour our facilities in order to familiarize yourself with our operations.

If your agency does not want to be notified, would you please so indicate in a letter to me for our records. If no response is received from you, Ball Corporation will assume that you do wish to be notified should an emergency arise.

If you have any questions or require any additional information to be able to make a decision concerning this matter, please contact me at 747-6286.

Sincerely,

Jeffrey A. Wineinger Environmental Engineer



Ball Corporation345 South High Street, Muncie, Indiana 47305-2326 (317) 747-6100
Reply to: P.O. Box 2407, Muncie, Indiana 47307-0407

January 18, 1990

Mr. Robert Broadhead Administrator Ball Memorial Hospital 2401 W. University Muncie, Indiana 47304

Re: Contingency Plan Arrangements

Dear Mr. Broadhead,

This letter is being sent to you in accordance with Indiana Administrative Code 329 part 3-17-7. This section requires Ball Corporation, as a generator of hazardous waste, to attempt to make arrangements with local authorities outlining the role emergency responders will play in the event any hazardous waste emergency at our facilities should occur.

Therefore, Ball Corporation would like to know if Ball Memorial Hospital should be notified in the event of an emergency situation arising at either of our facilities which are located at 345 S. High Street and at 9th and Blaine Streets in Muncie.

If you do want to be contacted, a copy of our current Emergency Contingency Plan will be forwarded to you as soon as it is approved by the State, along with a list of the hazardous waste that could be on site. Also, we would invite you to tour our facilities in order to familiarize yourself with our operations.

If Ball Memorial Hospital does not want to be notified, would you please so indicate in a letter to me for our records. If no response is received from you, Ball Corporation will assume that you do wish to be notified should an emergency arise.

If you have any questions or require any additional information to be able to make a decision concerning this matter, please contact me at 747-6286.

Sincerely,

Jeffrey A. Wineinger Environmental Engineer

EXHIBIT L

BUILDING 48 EXTERIOR INSPECTION LOG

Locks" Date Time Guard's Name ND MD CB Comments 2045 HENSLEY TENOLEY 20:30 MENSLEY 1800 ARM KE 1646 L Secure Some L L 640 1800 VENABLE SECURE 1800 1410.91 4E HSCEV 1-11-91 VENABLE 1812 VUL SECURE

When this sheet is full, send it to Environmental Services, High Street

^{*} MD = North Door, MD = Mandoor, CB = Control Box

BUILDING 48 EXTERIOR INSPECTION LOG

Date Time	Guard's Name		MD		Comments
1-12-91 1650	Stahl	L	- L	-	
1-13-91 1815	Stahl	1	V	10	
1-14-91 1800	Venable	2	V	V	
1-15-9/ 1807	Stall	V	V	1	
1-16-91 1800	Habegger	~	7	L	
1-17-91 1868	STAN	V	V	V	
1/4.9/ 2130	HENSLEY		/		
1-19-91 1800	HENS/EY	V	V	~	
1-20-91 1645	Stahl	~	V		
1-21-91 1804	ISTAH	2	·V	~	
1.22.91 1755	TENSLEY	1	/	7	
1-2391 1807	STANI	1	-1	0	
1-24-91 1802	C. Perm	1	V	V	Secure
1-25-91 1810	Stall	1	1	-	
1.26.91 1815	HENSLEY		/	7	
1-21.91 1810	HENSLEY	1	7	7	
1-28-9/ 1805	VENABLE	V	4	0	SECURE
1-29-91 1800	Habegger.	V	V	V	SELURE
1.30.91 1755	HENSLEY.	17	1	1	920002
1-31-91 1806	Stahl	1	V	1	
2-1-91 1750	VENABLE	U	レ	4	SECURE
2.2.91 18//	Stahl	4	1	1	
2-3-91 1805	Habeger	V	コ	オ	Secure
2-4-91 1806	Stah!	1,1			2000
	Habegger	V	V	~	Secure
2.6.91 1755	HENGLEY	1	オ	7	Secure
2-7-91 1800	Habegger	V	V	V	Secure
2.8-91 2050	Stabl			士	
2-9-9/ 1815	Stall	W'			Secure/
2/10/91 1810	VENABLE	V	v	1	SECURE

^{*} MD = North Door, MD = Mandoor, CB = Control Box

When this sheet is full, send it to Environmental Services, High Street

BUILDING 48 INTERNAL INSPECTION LOG

Date	Time	Name	A.	Ce B		a	Bndr	Comments
1/4/91	2:05	RICHARIS COLE	-	V	V		405	NONE
1/10/91	10:35 AT	RICHARD COLC	i.	. **	v	5	Yes	Love
1/19/91	4:30 17	Richard Cove	U	U	U	レ	415	Nove
1/4/91	1/-KARE	Roman Jaco		-	i	V		1. Tre
1/28/91	2:05011	RICHARIO COLE	1	L	4	4	Yes	line
2/8/91	2:1580	RICHARD Cole	1	بد	L	2	400	None None
2/12/91	1:40PA	RICHARD COLE	7	~	-	U	1105	Nove
2/21/91	11:40AM	RICHARD COLE	レ	v		L	405	Nove
2/24/91	3:30PM	RICHARD COL	J	-	L	レ		Nove
3/8/91	4:15 PM	RICHMO COLE	V	V	u	L	415	Nove
3/4/91	3:05.8n	RICHARD COLE	V	ν	V	V	403	Nove
								·
					_			
	•]							
							-	
			1					

Completed forms are to be maintained in a binder in Building 48.

EXHIBIT L

BUILDING 48 EXTERIOR INSPECTION LOG

Locks" Date Time Guard's Name ND MD CB Comments 2045 TENSLEY TENOLEY 20:50 MENSLEY ARM KE L Thomas Secure Secure L 640 1-9-91 1800 VENABLE SECURE 1800 HENSLEY 1812 4 VENABLE SECURE

When this sheet is full, send it to Environmental Services, High Street

^{*} MD = North Door, MD = Mandoor, CB = Control Box

BUILDING 48 EXTERIOR INSPECTION LOG

Date	Time	Guard's Name	Contraction of the Contraction o	DC KI	-63	Comments
1-12-91	1650	Stahl		- L	-	
1-13-91	1815	Stahl	1	V	10	
1-14-91	1800	Venable	2	V	V	
1-15-91		Stall	V	V	/	
1-16-91		Habegger	~	~	1	,
1-17-91	1808	Stahl	V	V	V	
1:18:91	2130	HENSLEY				
1-19-91	1880	HENSLEY	V	V	~	
1-20-91	1645	StAHI	-	1		
1-21-91	1804	ISTAH	1	·V	~	7.2
1.22.91	1755	TENSLEY	1	/		
1-2391	1807	Stahl	L	-1	U	2
1-24-91	1802	C. Perm	1	V	V	Secure
195.91	1810	Stall	V	1	~	
1.26.91	1815	HENSLEY	/	/		
1-23.91	1810	HENSLEY				
1-28-91	1805	VENABLE	V	L	0	SECURE
1-29-91	1800	Habegger.	V	V	V	SELURE
1.30.91	1755	HENSLEY.		/		
1-31-91	1806	Stahl	V	V		
2-1-91	1750	VENABLE	V	レ	2	SECURE
2-2-91	1811	Stah	2	1	-	
2-3-91	1805	Habeger	V	V		Secure
2-4-91	1806	Stahl	1		~	
2-5-91	1800	Habegger	V	V	V	Secure
2.6.91	1755	HENSLEY		/		
2-7-91	1800	Habegga	V	V	V	Secure
2.8-91	2050	Stahl	1	~	~	Society
2-9-91	1815	Stall	V	V	~	Secure/ Service
2/10/91	1810	VENABLE	V	v	V	RECURE

^{*} MD = North Door, MD = Mandoor, CB = Control Box

When this sheet is full, send it to Environmental Services, High Street

BUILDING 48 INTERNAL INSPECTION LOG

Date	Time	Name	A	Ce B		D	Bndr	Comments
1/4/91	2:05	RICHARIS COLE	v	V	V	V	4.5	NONE
1/10/91		RICHARD COLE	r	. 50	v	5	Yes	home.
1/19/21	4:30 Pm	Richard Core	U	u	U	レ	415	None
1/4/91	1/ACARE	Roberto Care			į.	V	400	1.710
1/28/91	2:05 pm	RICHARD COLE	L	ı	٤	6	Y13	None None
2/8/91	2:1500	RICHARD CoLE	الما	س	L	١	400	lione
2/12/91			V	V	~	U	1105	Nove
2/21/91			V	u		~	405	Nove
2/24/91			<u>ن</u>	۰	L	し	48	Nove
3/8/91			レ	V	·	u	415	Nove
3/4/91	3:05 PM	RICHARD GOLE	v	ν	V	~	403	None
						<u></u> .		
<u> </u>								
							*	
<u> </u>								

Completed forms are to be maintained in a binder in Building 48.

EXHIBIT M

IV. IMPLEMENTATION OF CONTINGENCY PLAN

This Contingency Plan must be implemented if an imminent or actual incident could threaten human health or the environment.

The following are the Contingency Plan implementation criteria for the three types of incidents of concern:

Spills.

- A. The spill could result in release of flammable liquids or vapors in amounts capable of creating a fire or explosion hazard.
- B. The spill could cause the release of toxic liquids or gases in amounts capable of threatening human health.
- C. The spill exceeds the Reportable Quantity (RQ) for the hazardous substance or waste.
- D. The spill cannot be contained on-site, or reaches municipal sewers.

Fires

- A. The fire could cause the release of toxic fumes or gases.
- B. If the fire spreads, it could ignite materials at other locations on-site.
- C. The fire could spread to off-site areas.
- D. The use of water as the fire suppression agent could result in contaminated runoff.

Explosions

- A. An imminent danger exists that an explosion could occur.
- B. An explosion has occurred.

V. EMERGENCY RESPONSE PROCEDURES

- A. The emergency response procedures will address the following emergency conditions;
 - 1. Fire
 - 2. Explosion
 - 3. Release of hazardous materials/wastes
- B. In the unlikely event that a release of hazardous materials/wastes, fires or explosions should occur, the following reporting procedures will be implemented;
 - 1. The employee discovering the actual or imminent emergency situation will take immediate action to prevent or contain the emergency situation if possible;
 - 2. Immediately notify the supervisor on duty. If it is determined that an actual emergency exists that could lead to fire, explosion or any unplanned release of hazardous waste or hazardous materials to air, soil, or surface water, IMMEDIATELY NOTIFY THE EMERGENCY COORDINATOR;
 - 3. Information provided to the Emergency Coordinator will include:
 - employee name
 - location of the spill, fire, explosion
 - type and quantity of spilled material
 - actions and results of efforts to contain spill, fire or explosion
 - circumstances that caused the emergency situation

- C. Once the decision is made to implement the Contingency Plan, the Emergency Coordinator will take the following actions:
 - Immediately upon discovering an imminent or actual emergency;
 - a) Activate the internal alarm or immediately contact managers to notify facility personnel.
 - Account for all personnel
 - Determine if there are any injuries
 - b) Notify local, State and Federal agencies.

MUNCIE POLICE DEPARTMENT

- (317) 747-4822

EMERGENCY

- 911

MUNCIE FIRE DEPARTMENT

- (317) 747-4877

EMERGENCY

- 911

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (IDEM)

- (317) 241-4336

NATIONAL RESPONSE CENTER (NRC) - (800) 424-8802

or

(202) 425-2657

Reports to the IDEM and NRC must include:

- Name and number of person reporting;
- Name and address of facility;
- Type and time of incident;
- Name and quantity of material(s) involved;
- The extent of personal injuries, if any;
- The possible hazards to human health, or the environment outside the facility.
- c) Identify the characteristics, exact source, amount and extent of any released material.
 - Determine if facility evacuation is necessary;
 - Determine if facility personnel can control the situation;
 - Notify an emergency response company if facility personnel and/or local public safety personnel cannot control the situation.
- d) Assess potential hazards to human health and the environment. Take into account any direct or indirect effect(s) of the spill, fire or explosion.
- e) Determine if evacuation of the surrounding public is advisable. If so, notify local public safety personnel.

- f) Ensure that fires, explosions or releases of hazardous materials/wastes do not occur, recur, or spread to other hazardous materials/wastes.
- g) When necessary, stop processes and operations, collect and contain released waste, and remove and isolate containers of hazardous materials.
- 2. Emergency Control Phase Procedures Spills
 - a. Determine source of spill and material(s) involved.
 - b. Determine the hazard(s) involved and eliminate all sources of ignition.
 - c. Responding personnel are to be properly equipped (safety equipment, clothing, and respiratory protection).
 - d. Responding personnel are to approach the leaking drum or spilled material from an upwind direction, if possible.
 - e. Contain the spill to the smallest area possible, using absorbent or neutralization agents, if necessary.
 - f. Upright any overturned drums or overpack leaking containers.
 - g. If the spilled material is unrecoverable, treat or absorb the material.
 - h. Remove spilled and absorbed materials and contaminated soils. Dispose as hazardous waste.
 - i. Clean, restore, or replace spill response equipment and return it to original location(s).

- 3. Emergency Control Phase Procedures Fires/Explosions
 - a. Determine what is on fire.
 - b. Determine the hazard(s) involved.
 - c. Evacuate all endangered or unnecessary personnel.
 - d. Determine if evacuation of off-site areas is necessary.
 - e. Small (single barrel) fires may be responded to by on-site personnel while the fire department is enroute. Water hoses, fire extinguishers, dirt, or sand may be utilized. Any such response may be taken only IF it will not endanger the responder's life or health. Appropriate safety equipment must be worn.
 - f. Allow the fire department to take appropriate and necessary measures.
 - g. After the fire is extinguished, clean up affected areas.
 Dispose contaminated materials as hazardous waste.
 - h. Clean, restore, or replace emergency equipment and return it to original location(s).

3. Follow-up Activities

- a. Provide for treating, storing or disposing of recovered waste, contaminated soil, surface water or other material resulting from the incident.
- b. Ensure that clean-up procedures are completed and emergency equipment is fit for use before resuming operations in the affected areas.

- c. Notify local, state and federal officials before resuming operation.
- d. Submit written reports on the incident, as required, to the IDEM within 15 days after the incident. Include details of any incident that required implementation of the Contingency Plan. This report will include:
 - Name, address and telephone number of the facility where the incident occurred;
 - Owner of the facility;
 - Date, time and type of incident;
 - Name and quantity of material(s) involved;
 - The extent of injuries, if any;
 - An assessment of actual or potential hazards to human health or the environment, when applicable;
 - Estimated quantity and disposition of recovered material from the incident.

EXHIBIT N

HAZARDOUS WASTE EMERGENCY RESPONSE EQUIPMENT TESTING AND MAINTENANCE PROCEDURES

The following equipment is present in the various hazardous waste generating areas and the 90-day storage building at the Macedonia complex to respond to emergencies involving hazardous wastes or materials. The Superintendent, Plant Services will assure that the emergency cleanup supplies are in good working order. If at any time any of the emergency response equipment is deemed defective, it will be immediately fixed or replaced by Plant Services or the appropriate department. The Plant Services Department will conduct monthly inspections of the emergency equipment located within their department and the 90-day hazardous waste storage building. A record of these inspections will be kept in the log book located in the 90-day hazardous waste storage building.

Fire Extinguishers:

Fire extinguishers will be inspected monthly by the Plant Services
Department. The inspection will consist of visually checking the pressure
gauge at the top of the tank. CO₂ extinguishers are refilled, when
necessary, by Plant Services personnel. Dry powder extinguishers are
serviced annually and/or as needed by Koorsen Protection Services, Inc.

Telephone:

The telephones at or near the waste accumulation areas are routinely used on a daily basis. Any disruption in service is immediately communicated to Information Services for correction.

Alarm:

The aerosol horn located in the 90-day storage area will be tested monthly to ensure it is operating properly. The method of testing will consist of operating the alarm to contact the Security Guards located at the guard house approximately 60 feet from the 90-day hazardous waste storage building. The Security Guard on duty will verify by hand signal that the horn has been heard.

Emergency Eye Wash Stations:

Portable eye wash stations will be inspected monthly to assure its contents are fresh and full. Fixed location eye wash stations (eye wash fountains) will also be inspected on a monthly basis. This inspection will consist of operating the fountain for approximately five minutes to ensure the water supply pipes are fully purged with fresh, clean water.

Spill Absorbent Material:

The spill absorbent material located in the 90-day storage building will be visually inspected monthly. The Plant Services Department will verify that an adequate supply is present and in good operating condition. Spill absorbent materials located in hazardous waste generating departments will be inspected on a monthly basis by the department manager or his/her designee.

Salvage Drum:

The salvage drum located in the 90-day storage building will be visually inspected monthly for corrosion and damage.

Scoop Shovel:

The scoop shovel will be visually inspected for damage on a monthly basis.

Push Broom:

The push broom will be inspected on a monthly basis to ensure it is in good operating condition.

Protective Gloves and Clothing, Respirators:

Personnel protective equipment will be inspected on a monthly basis by the departments providing the equipment. The inspection will consist of a visual inspection to determine good operating condition and cleanliness.

Budich



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Waste Management Divisio

105 South Meridian Street P.O. Box 6015 Indianapolis 46206-6015 Telephone 317/232-8603

March 19, 1991

VIA CERTIFIED MAIL P 404 637 886

Mr. Duane E. Emerson Senior Vice-President, Administration Ball Corporation 345 South High Street Muncie, Indiana 47305-2326

Re: Notice of Inadequacy (Cause No. H-135)
Hazardous Waste Management
Ball Corporation
EPA I.D. No. IND 000810713
Muncie, Delaware County

Dear Mr. Emerson:

This will acknowledge the receipt of information or documents from Ball Corporation on December 27, 1989, February 19, 1990 and March 19, 1990. This information was submitted as directed by the terms of the Order contained in an Agreed Order in Cause number H-135 adopted on November 26, 1989.

In addition, a scheduled compliance evaluation was conducted on September 19, 1990, by Messrs. James Myers and Doug Cowin of Metcalf and Eddy, Inc., contractors for the U.S. Environmental Protection Agency. This inspection also served as an enforcement follow-up inspection to determine Ball Corporation's compliance with the Agreed Order contained in Cause number H-135. Numerous repeat violations, as well as new violations, were discovered during this inspection. New violations will be addressed in a separate enforcement action. Repeat violations discovered during the September 19, 1990, inspection include the following:

1. The training required for all facility personnel involved in the management or handling of hazardous waste (Order number 4 of Cause number H-135) is deficient. Specifically, not all personnel listed by Ball Corporation as involved in the management or handling of hazardous waste had received training. Additionally, the adequacy of training provided to hazardous waste management personnel is unclear. The training program consists of a video tape, which is viewed by all hazardous waste management personnel. However, there

is no documentation that indicates that the video tape fulfills the requirements of 329 IAC 3-16-7(a)(3). Submit training records to this Office for all hazardous waste management personnel which indicate that hazardous waste training has been conducted for 1990. Additionally, submit documentation to this Office which describes in detail the content of the training program provided to hazardous waste management personnel.

- 2. The personnel training records developed by Ball Corporation in response to Order number 5 (Cause number H-135) were deficient. Specifically, job descriptions for each person assigned to a hazardous waste management position were not included. Additionally, a written description of the type and amount of both introductory and continuing training that will be given to each person filling a hazardous waste management position (as required by 329 IAC 3-16-7(d)(3)) was not documented. Submit to this Office job descriptions for each person assigned to a hazardous waste management position. In addition, submit a written description of the type and amount of both introductory and continuing training that will be given to each person filling a hazardous waste management position.
- 3. Ball Corporation has not maintained and operated the facilities so as to minimize the possibility of a fire, explosion, or any unplanned sudden or nonsudden release of hazardous waste as required by Order number 6 of Cause number H-135. Specifically, a blue-green powdery substance was noted as being present on the floor of the container storage area. Upon inquiry by Mr. Cowin and Mr. Myers (Metcalf & Eddy, Inc.) as to the identification of the material, Messrs. Richard Cole and Steve Ball (Ball Corporation) stated that they were unaware of any spills occurring in the container storage area, and could not identify the material. Submit documentation to this Office, which describes the amount and identification of the spilled material, as well as the procedures used to clean up and dispose of this material. In the future, ensure that the facility is maintained and operated so as to minimize the possibility of a fire, explosion, or any unplanned sudden or nonsudden release of hazardous waste.
- 4. Ball Corporation has not provided emergency equipment as required by Order number 7 of Cause number H-135. Specifically, the telephone located in the container storage area was disconnected. Restore or provide telephone service to the container storage area. Submit documentation to this Office which describes the measures taken to restore or provide telephone service to this area and the date the service was restored or provided.
- 5. Ball Corporation has not provided immediate access to internal alarms as required by Order number 25 of Cause number H-135. Specifically, Mr. Steve Ball (Ball Corporation) stated during the inspection that an alarm for the container storage area was "on order." Submit a copy of the purchase order which indicates that an order for the

alarm has been placed. In addition, contact the supplier of the alarm to ascertain a date for which delivery of the alarm might be expected. Include the information obtained from the supplier with the copy of the purchase order to be submitted to this Office.

A review of your responses submitted on December 27, 1989, February 19, 1990, and March 19, 1990, as per the Agreed Order contained in Cause number H-135, was conducted on October 9, 1990. The following deficiencies were noted:

- 6. The inspection schedule submitted in your December 27, 1989, response does not address inspections to be conducted on holidays. Revise paragraph one of the "Building 48 Inspection Schedule" to read, "The inspection shall occur at any time during the day between midnight to midnight, and shall include weekends and holidays." Submit a revised copy of the "Building 48 Inspection Schedule" which reflects this change to this Office.
- 7. The site assessment plan submitted by Ball Corporation on March 19, 1990 was deficient. Revise the site assessment plan to address the following deficiencies and submit a copy of the revised site assessment to this Office.
 - a. Clarify if the "Vegetation Control with 2,4-D" drum was empty prior to rinsing. If not, estimate the quantity of product remaining.
 - b. Justify why Ball Corporation will not be analyzing for the weed killer or modify the plan to address the presence of 2,4-D. The presence of residuals from legal use does not legitimize illegal disposal in the same area.
 - c. Explain how the disposal area was determined to be contained within the 50 by 50 foot gridded area.
 - d. A 14 foot grid interval over a 50 x 50 foot area results in 16 grid points instead of 9. The points should be numbered and at least 4 chosen as sample points based on a random number table.
 - e. The last paragraph of Section 3.1 should be clarified to state that contamination at the 24 inch level will trigger analysis of the 36, 48, and 60 inch samples.
 - f. The 0-6 inch samples shall be analyzed if the sample is not all gravel. If the 0-6 inch sample is not analyzed and there is contamination at the 6-12 inch level, then the overlying soil or gravel shall be considered to be contaminated.
 - g. Revise Figure 3 to include 16 grid points and identify which points will be sampled.

- h. In Section 3.3 explain if a sample will be considered to be contaminated if one analysis is positive but the second analysis is negative.
- 8. The personnel training record submitted on February 19, 1990, is deficient. Revise the training record to include the following:
 - a. procedures for inspecting, repairing and replacing facility emergency equipment and monitoring equipment (329 IAC 3-16-7(a)(3)(A)),
 - b. use of alarm systems (329 IAC 3-16-7(a)(3)(c)), and
 - c. shutdown of operations (329 IAC 3-16-7(a)(3)(F)).

If any of these items are not applicable, please indicate this in your response. Submit a copy of the revised personnel training record to this Office.

- 9. Included in your contingency plan submitted on December 27, 1989, is a diagram of a building (diagram is located on the page previous to "Appendix B"). There is no designation on the diagram as to which building this is. Identify this building and submit a copy of the revised page to this Office.
- 10. Order number 12 of Cause number H-135 required Ball Corporation to submit a copy of its contingency plan to all local police departments, fire departments, hospitals, and State and local emergency response teams. In your December 27, 1989, response you included letters to the Munice Police Department and the Muncie Fire Department indicating that you were transmitting a copy of your contingency plan to them. However, in your letter to Ball Memorial Hospital, you do not indicate that you have enclosed a copy of your contingency plan. Additionally, there is no indication that a copy of your contingency plan has been submitted to State and local emergency response teams. Send copies of your contingency plan to all local hospitals, as well as State and local emergency response teams. Submit documentation to this Office which indicates that copies of your contingency plan have been sent to these agencies.

In addition to the above, provide the following information:

- 1. As per Order number 2 of Cause number H-135, Ball Corporation is required to develop and follow a written inspection schedule and log to record daily inspections of the exterior of Building 48 and weekly inspections of the interior of Building 48. Submit to this Office copies of these logs for the month of January 1991.
- 2. Clarify the information contained in A.2C. (pg. 1) of your contingency plan submitted on December 27, 1989. Specifically, what

decision guidelines are employees to use when deciding to either "institute specific procedures as outlined in this plan or follow direction from the Emergency Coordinator?" In other words, how are employees to know whether to implement the plan or wait to hear from the Emergency Coordinator?

3. Provide a description of the testing and maintenance procedures Ball Corporation put into place for all facility equipment as required by Order number 8 of Cause number H-135.

Your documents must be revised or supplemented as necessary to address these deficiencies. The Order requires that compliance be demonstrated within a specified time frame. Accordingly, the revised submittals should be delivered to this Office within thirty (30) days of your receipt of this notice.

The above-listed deficiencies indicate noncompliance with the terms of the Final Order in this cause. If these deficiencies are not corrected or addressed in full through your next submittal, we will refer this matter to the Office of the Attorney General for a civil filing in the appropriate court. Such action will be taken to compel compliance and for whatever additional relief or penalty the court may find proper.

If you have any questions regarding this matter, please contact Ms. Pamela J. O'Rourke of this Office at AC 317/232-4464.

Very truly yours,

Dennis M. Zawodni, Chief

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Enforcement Section

Hazardous Waste Management Branch Solid and Hazardous Waste Management

PJO/rmw

cc: Delaware County Health Department

Mr. Robert W. McClelland

Ms. Harinder Kaur, Office of Legal Counsel

Ms. Ann Budich, U.S. EPA, Region V //

Mr. Mike Wilhelm